



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|----------------------|---------------------|------------------|
| 09/899,128 | 07/06/2001 | Eric Jensen | AND01 011 | 3792 |
| 79172 | 7590 | 11/24/2009 | EXAMINER | |
| Duane Morris LLP | | | PEREZ, ANGELICA | |
| 505 9th Street, N.W. | | | | |
| Suite 1000 | | | ART UNIT | PAPER NUMBER |
| Washington, DC 20004 | | | 2618 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 11/24/2009 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/899,128 | JENSEN, ERIC | |
| | Examiner | Art Unit | |
| | ANGELICA M. PEREZ | 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 14 August 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) 4-6 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3 and 7-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agostino et al. (Agostino, US006519452B1) in view of Nelson, Roderick (Nelson, US Patent No: 7,280,803 B2).

Regarding claims 1, 17 and 18, Agostino teaches of a method and apparatus for collecting and processing uplink received signal level data and geolocation data over a wireless system (columns 2 and 3, lines 12-15, 64-67 and 1-7), comprising the steps of: gathering signal strength data of received uplink signals of identified subscriber mobile units as measured and collected by a cell site (columns 1, 2, 3, 4 and 8, lines 50-58, 14-19, 64-67, 1-9, and lines 34-48, respectively; where “as it has perceived” corresponds to measurements made by the BS, and “reverse link” and “short term reverse RSSI” corresponds to radio signal sent from the MS and measured by the BS; column 4, lines 20-24, where data corresponding to identified MS is time-stamped. Also, where the data is measured and collected at the base station, and later passed on to the MTE or another gathering device. Also, according to Agostino, the MTE corresponds to a base station, see column 8, lines 34-35); gathering geolocation data corresponding to mobile

units (columns 3 and 9, lines 1-3 and 41-45, respectively, e.g., “location data”); forming data pairs by identifying the gathered geolocation data and the gathered signal strength corresponding to the common identified mobile units and by selecting the geolocation data and the measured signal strength data received within sufficiently closed temporal proximity to a reference time stamp to identify data from the same mobile unit (columns 3 and 4, lines 55-67 and 1-34); generating a set of data pairs correlating measured signal strength values to specific geographic locations throughout the wireless system (figure 8, where to generate the map, data pairs of measured signal strength and location information about the mobile units are required).

Although as explained in the above remarks, Agostino does not specifically teach of “test driving”, but utilizes “mobile diagnostic units” as in the present invention (specialized test units), the examiner would like to introduce Nelson to teach where each of the steps are performed without test driving (columns 1, lines 33-43 and 60-67; column 2, lines 1-8; column 3, lines 45-51; column 4, lines 17-19 and 22-24; where the uplink information from the of the wireless devices are used in place of “drive testing” to collect real-time data for analyses). Nelson also teaches of gathering downlink geolocation data corresponding to the mobile units, the geolocation data measured by the mobile units (column 3, lines 64-67 and column 4, lines 1-4; where the handset is provided with part of a GPS receiver to receive/determine its location and also “using TDOA technique to measure data at the handset rather than switch 18”; where the location information is later sent to switch 18 by the handset)

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Nelson's data gathering and analysis with Agostino's teachings, in order to obtain more timely and comprehensive data from the wireless devices while being used. In addition, determining the location at the wireless device is a well known alternative method to determine location.

Regarding claim 2, Agostino and Nelson teach all the limitations according to claim 1. Agostino further teaches where: the signal strength data is collected by measuring the signal strength of a signal received by a cell site, from a mobile wireless unit (columns 1, lines 38-40; where "as it has perceived" corresponds to measurements made by the BS).

Regarding claim 3, Agostino and Nelson teach all the limitations of claim 1. In addition, Agostino teaches where the signal strength data is collected by measuring the signal strength of a signal received by a wireless mobile unit, from a cell site (column 8, lines 44-45, e.g. "Short Term Forward RSSI").

Regarding claim 7, Agostino and Nelson teach all the limitations of claim 1. In addition, Agostino further teaches where the correlation includes matching the geolocation data with the signal strength data of a mobile unit based upon the receipt of data corresponding to the same mobile unit (columns 1 and 4, lines 50-66 and 20-24, where the measurements are made in real time).

3. Claims 8, 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agostino in view of Nelson and further in view of Tayloe et al. (Tayloe, Patent No: 5,095,500).

Regarding claim 8, Agostino and Nelson teach all the limitations of claim 1.

In related art concerning cellular telephone diagnostic system, Tayloe teaches of analyzing the set of data pairs to evaluate the effective RF propagation within the wireless system (column 6, lines 59-61; where the evaluated RF propagation leads to the necessary adjustments in the RF planning).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Agostino's and Nelson's with Tayloe's evaluation of effective RF propagation in order to plan necessary adjustments.

Regarding claim 11, Agostino and Nelson teach all the limitations of claim 1. Tayloe further teaches of gathering drop call incident data from the system; and identifying the geolocation corresponding to the dropped call incidents (column 7, lines 49-59).

Regarding claim 12, Agostino, Nelson and Tayloe teach all the limitations of claim 11. Tayloe further teaches of generating a set of data points correlating drop call incidents with geolocation of occurrence (column 7, lines 49-59; where the correlation provides the information to adjust the electromagnetic coverage of the system).

Regarding claim 13, Agostino, Nelson and Tayloe teach all the limitations of claim 12. Tayloe further teaches of analyzing the drop call geolocation data set to determine an effective implementation for addressing dropped calls (column 7, lines 51-59).

Regarding claim 14, Agostino and Nelson teach all the limitations of claim 1. Tayloe further teaches of gathering blocked call incident data from the system; and

identifying the geolocation corresponding to said blocked call incidents (column 4, lines 48-50, column 5, lines 42-52 and column 8, lines 24-35).

Regarding claim 15, Agostino, Nelson and Tayloe teach all the limitations of claim 14. In addition, Tayloe further teaches of generating a set of data points correlating blocked call incidents with geolocation of occurrence (column 4, lines 61-67).

Regarding claim 16, Agostino, Nelson and Tayloe teach all the limitations of claim 15. In addition, Tayloe teaches of analyzing the blocked call geolocation data set to determine an effective implementation for addressing blocked calls (column 8, lines 36-49 and column 5, lines 50-52).

4. Claims 9 -10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agostino in view of Nelson and further in view of Montoya (Montoya, Alexander John; US Patent No: 6,400,943).

Regarding claim 9, Agostino and Nelson teach all the limitations of claim 1. Tayloe further teaches of identifying the cell site, which gathered each signal strength data measurement corresponding to each geolocation within the wireless system (column 2, lines 49-65 and figures 2, 3 and 4).

Montoya further teaches of determining the identified cell site likely to receive a signal from a mobile unit at each identified geolocation within the wireless system (column 5, lines 9-21; where the location code that identifies helps to decide what base station corresponds to the identified location).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Agostino's and Nelson's method of gathered location

data and gathered strength data corresponding to the same mobil unit with Montoya's the identified cells in order to maintain accurate record of the data.

Regarding claim 10, Agostino, Nelson and Montoya teach all the limitations of claim 9.

Montoya further teaches of redefining the projected distribution of likely server cell sites within the wireless system based upon the determination of identified likely cell sites (column 8 lines, 11-17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Agostino's and Nelson's method of gathered location data and gathered strength data corresponding to the same mobil unit with Montoya's the identified cells in order to maintain accurate record of the data.

Response to Arguments

5. Applicant's arguments with respect to claims 1-3, 7-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 8:00 a.m. - 3:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached at (571) 272-7882. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

/P. M. A./
Examiner, Art Unit 2618

/Nay A. Maung/
Supervisory Patent Examiner, Art Unit 2618